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*Illinois Environmental Protection Agency*

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***PRELIMINARY***

***ASSESSMENT***

***SCORESHEET***

***CONFIDENTIAL***

# ***PA Scoresheets***

Site Name:

Date:

GENERAL INFORMATION (continued)

1

Source Descriptions:

1. Sixteen (16) drums of waste in a surface impoundment were discovered during an August 30, 1990 inspection. The drums contained spent solvents (1,1,1-trichloroethane, still bottoms from reclamation of 1,1,1-trichloroethane, and methylene chloride).

Waste Characteristics (WC) Calculations:

(See PA Table 1, page 5)

Single Source Site

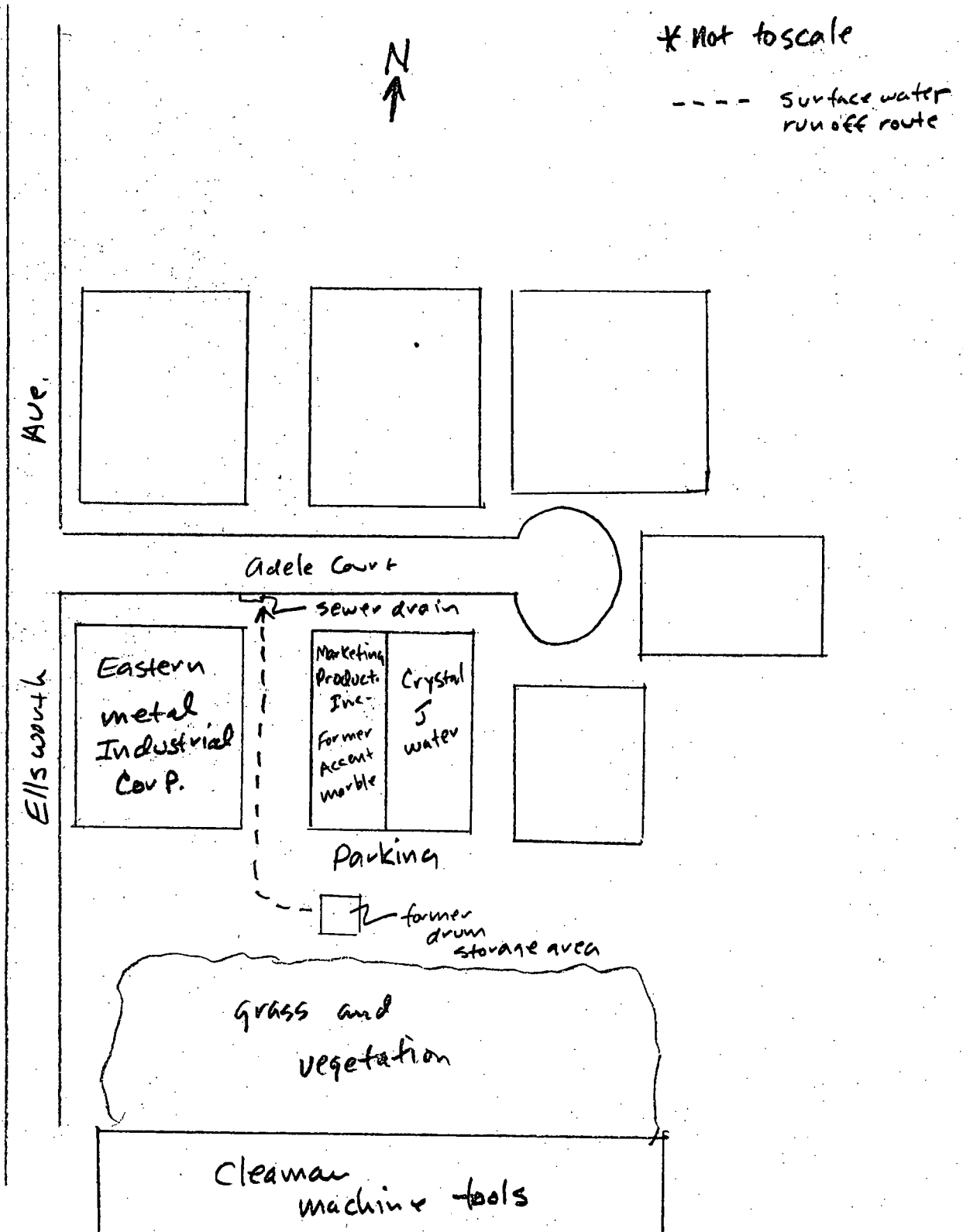
- 1) Volume - drums  
16 drums  
WQ=18

WC -

18

GENERAL INFORMATION (continued)

**Site Sketch:** Prepare a sketch of the site (freehand is acceptable). Indicate all pertinent features of the site and nearby environs, including: waste sources, buildings, residences, access roads, parking areas, drainage patterns, water bodies, vegetation, wells, sensitive environments, etc.



PA TABLE 1: WASTE CHARACTERISTICS (WC) SCORES

PA Table 1a: WC Scores for Single Source Sites and Formulas for Multiple Source Sites

TIER	SOURCE TYPE	SINGLE SOURCE SITES (assigned WC scores)			MULTIPLE SOURCE SITES
		WC = 18	WC = 32	WC = 100	
CONSTITUENT	N/A	$\leq 100$ lb	> 100 to 10,000 lb	> 10,000 lb	$lb + 1$
WASTE QUANTITY	N/A	$\leq 500,000$ lb	> 500,000 to 50 million lb	> 50 million lb	$lb + 5,000$
VOLUME	Landfill	$\leq 6.75$ million $ft^3$ $\leq 250,000$ $yd^3$	> 6.75 million to 675 million $ft^3$ > 250,000 to 25 million $yd^3$	> 675 million $ft^3$ > 25 million $yd^3$	$ft^3 + 67,500$ $yd^3 + 2,500$
	Surface impoundment	$\leq 6,750$ $ft^3$ $\leq 250$ $yd^3$	> 6,750 to 675,000 $ft^3$ > 250 to 25,000 $yd^3$	> 675,000 $ft^3$ > 25,000 $yd^3$	$ft^3 + 67.5$ $yd^3 + 2.5$
	Drums	$\leq 1,000$ drums	> 1,000 to 100,000 drums	> 100,000 drums	$drums + 10$
	Tanks and non-drum containers	$\leq 50,000$ gallons	> 50,000 to 5 million gallons	> 5 million gallons	$gallons + 500$
	Contaminated soil	$\leq 6.75$ million $ft^3$ $\leq 250,000$ $yd^3$	> 6.75 million to 675 million $ft^3$ > 250,000 to 25 million $yd^3$	> 675 million $ft^3$ > 25 million $yd^3$	$ft^3 + 67,500$ $yd^3 + 2,500$
	Pile	$\leq 6,750$ $ft^3$ $\leq 250$ $yd^3$	> 6,750 to 675,000 $ft^3$ > 250 to 25,000 $yd^3$	> 675,000 $ft^3$ > 25,000 $yd^3$	$ft^3 + 67.5$ $yd^3 + 2.5$
AREA	Other	$\leq 6,750$ $ft^3$ $\leq 250$ $yd^3$	> 6,750 to 675,000 $ft^3$ > 250 to 25,000 $yd^3$	> 675,000 $ft^3$ > 25,000 $yd^3$	$ft^3 + 67.5$ $yd^3 + 2.5$
	Landfill	$\leq 340,000$ $ft^2$ $\leq 7.8$ acres	> 340,000 to 34 million $ft^2$ > 7.8 to 780 acres	> 34 million $ft^2$ > 780 acres	$ft^2 + 3,400$ $acres + 0.078$
	Surface impoundment	$\leq 1,300$ $ft^2$ $\leq 0.029$ acres	> 1,300 to 130,000 $ft^2$ > 0.029 to 2.9 acres	> 130,000 $ft^2$ > 2.9 acres	$ft^2 + 13$ $acres + 0.00029$
	Contaminated soil	$\leq 3.4$ million $ft^2$ $\leq 78$ acres	> 3.4 million to 340 million $ft^2$ > 78 to 7,800 acres	> 340 million $ft^2$ > 7,800 acres	$ft^2 + 34,000$ $acres + 0.78$
	Pile*	$\leq 1,300$ $ft^2$ $\leq 0.029$ acres	> 1,300 to 130,000 $ft^2$ > 0.029 to 2.9 acres	> 130,000 $ft^2$ > 2.9 acres	$ft^2 + 13$ $acres + 0.00029$
	Land treatment	$\leq 27,000$ $ft^2$ $\leq 0.62$ acres	> 27,000 to 2.7 million $ft^2$ > 0.62 to 62 acres	> 2.7 million $ft^2$ > 62 acres	$ft^2 + 270$ $acres + 0.0062$

1 ton = 2,000 lb = 1  $yd^3$  = 4 drums = 200 gallons

\* Use area of land surface under pile, not surface area of pile.

PA Table 1b: WC Scores for Multiple Source Sites

WQ Total	WC Score
> 0 to 100	18
> 100 to 10,000	32
> 10,000	100

**GROUND WATER PATHWAY  
GROUND WATER USE DESCRIPTION**

4

**Describe Ground Water Use Within 4-miles of the Site:**

(Describe stratigraphy, information on aquifers, municipal and/or private wells)

According to several sources, the entire area within a four mile radius of the site is served by several water districts. All of the water districts utilize Chicago city water. The water districts obtain their water from surface water intakes located on Lake Michigan. Very few, if any, groundwater wells are used for private purposes. A small number of groundwater municipal wells are currently being used in a backup role. For locations of the backup wells, refer to the 7.5 minute map located in Section III of this report.

**Calculations for Drinking Water Populations Served by Ground Water:**

See PA Table 2 on page 7 of this report for public well data.

GROUND WATER PATHWAY CRITERIA LIST	
SUSPECTED RELEASE	PRIMARY TARGETS
<p>Y N U e o n s k</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Are sources poorly contained?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is the source a type likely to contribute to ground water contamination (e.g., wet lagoon)?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is waste quantity particularly large?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is precipitation heavy?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is the infiltration rate high?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is the site located in an area of karst terrain?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is the subsurface highly permeable or conductive?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is drinking water drawn from a shallow aquifer?</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Are suspected contaminants highly mobile in ground water?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Does analytical or circumstantial evidence suggest ground water contamination?</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Other criteria? _____</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> SUSPECTED RELEASE?</p>	<p>Y N U e o n s k</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is any drinking water well nearby?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Has any nearby drinking water well been closed?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Has any nearby drinking water user reported foul-tasting or foul-smelling water?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Does any nearby well have a large drawdown or high production rate?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is any drinking water well located between the site and other wells that are suspected to be exposed to a hazardous substance?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Does analytical or circumstantial evidence suggest contamination at a drinking water well?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Does any drinking water well warrant sampling?</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Other criteria? _____</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> PRIMARY TARGET(S) IDENTIFIED?</p>
<p>Summarize the rationale for Suspected Release (attach an additional page if necessary):</p> <p>_____</p> <p>No release to groundwater</p> <p>_____</p> <p>pathway is suspected.</p> <p>_____</p>	<p>Summarize the rationale for Primary Targets (attach an additional page if necessary):</p> <p>_____</p> <p>N/A</p>

# GROUND WATER PATHWAY SCORESHEET

6

Pathway Characteristics	
Do you suspect a release (see Ground Water Pathway Criteria List, page 7)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Is the site located in karst terrain?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Depth to aquifer:	roughly 70 ft
Distance to the nearest drinking water well:	4000 ft

## LIKELIHOOD OF RELEASE

	A Suspected Release (550)	B No Suspected Release (500 = 340)	Reference
1. SUSPECTED RELEASE: If you suspect a release to ground water (see page 7), assign a score of 550. Use only column A for this pathway.			
2. NO SUSPECTED RELEASE: If you do not suspect a release to ground water, and the site is in karst terrain or the depth to aquifer is 70 feet or less, assign a score of 500; otherwise, assign a score of 340. Use only column B for this pathway.		500	1
LR =		500	

## TARGETS

3. PRIMARY TARGET POPULATION: Determine the number of people served by drinking water wells that you suspect have been exposed to a hazardous substance from the site (see Ground Water Pathway Criteria List, page 7). _____ people x 10 =			
4. SECONDARY TARGET POPULATION: Determine the number of people served by drinking water wells that you do NOT suspect have been exposed to a hazardous substance from the site, and assign the total population score from PA Table 2. Are any wells part of a blended system? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, attach a page to show apportionment calculations.		2000	2
5. NEAREST WELL: If you have identified a primary target population for ground water, assign a score of 50; otherwise, assign the Nearest Well score from PA Table 2. If no drinking water wells exist within 4 miles, assign a score of zero.		9	3
6. WELLHEAD PROTECTION AREA (WHPA): If any source lies within or above a WHPA, or if you have identified any primary target well within a WHPA, assign a score of 20; assign 5 if neither condition holds but a WHPA is present within 4 miles; otherwise assign zero.		5	4
7. RESOURCES		5	
T =		2019	

## WASTE CHARACTERISTICS

8. A. If you have identified any primary target for ground water, assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.		
B. If you have NOT identified any primary target for ground water, assign the waste characteristics score calculated on page 4.		18
WC =		18

## GROUND WATER PATHWAY SCORE:

$$\frac{LR \times T \times WC}{82,500}$$

(subject to a maximum of 100)

100



PA TABLE 2: VALUES FOR SECONDARY GROUND WATER TARGET POPULATIONS

PA Table 2a: Non-Karst Aquifers

Distance from Site	Population	Nearest Well (choose highest)	Population Served by Wells Within Distance Category										Population Value
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	Greater than 100,000	
0 to 1/4 mile	510	20	1	2	5	16	52	163	521	1,633	5,214	16,325	52
> 1/4 to 1/2 mile	5000	18	1	1	3	10	32	101	323	1,012	3,233	10,121	323
> 1/2 to 1 mile	15,000	9	1	1	2	5	17	52	167	522	1,668	5,224	522
> 1 to 2 miles	30,000	5	1	1	1	3	9	29	94	294	939	2,938	294
> 2 to 3 miles	45,000	3	1	1	1	2	7	21	68	212	678	2,122	678
> 3 to 4 miles	27,000	2	1	1	1	1	4	13	42	131	417	1,306	131
Nearest Well =		9	Score =										2000

PA Table 2b: Karst Aquifers

Distance from Site	Population	Nearest Well (use 20 for karst)	Population Served by Wells Within Distance Category										Population Value
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	Greater than 100,000	
0 to 1/4 mile	_____	20	1	2	5	16	52	163	521	1,633	5,214	16,325	_____
> 1/4 to 1/2 mile	_____	20	1	1	3	10	32	101	323	1,012	3,233	10,121	_____
> 1/2 to 1 mile	_____	20	1	1	3	8	26	82	261	816	2,607	8,162	_____
> 1 to 2 miles	_____	20	1	1	3	8	26	82	261	816	2,607	8,162	_____
> 2 to 3 miles	_____	20	1	1	3	8	26	82	261	816	2,607	8,162	_____
> 3 to 4 miles	_____	20	1	1	3	8	26	82	261	816	2,607	8,162	_____
Nearest Well =			Score =										

SURFACE WATER PATHWAY CRITERIA LIST	
SUSPECTED RELEASE	PRIMARY TARGETS
<p>Y N U e o n s k</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Is surface water nearby?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is waste quantity particularly large?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is the drainage area large?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is rainfall heavy?</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Is the infiltration rate low?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Are sources poorly contained or prone to runoff or flooding?</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Is a runoff route well defined (e.g., ditch or channel leading to surface water)?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is vegetation stressed along the probable runoff route?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Are sediments or water unnaturally discolored?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is wildlife unnaturally absent?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Has deposition of waste into surface water been observed?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is ground water discharge to surface water likely?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Does analytical or circumstantial evidence suggest surface water contamination?</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Other criteria? _____</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> SUSPECTED RELEASE?</p>	<p>Y N U e o n s k</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is any target nearby? If yes:</p> <p><input type="checkbox"/> Drinking water intake</p> <p><input type="checkbox"/> Fishery</p> <p><input type="checkbox"/> Sensitive environment.</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Has any intake, fishery, or recreational area been closed?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Does analytical or circumstantial evidence suggest surface water contamination at or downstream of a target?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Does any target warrant sampling? If yes:</p> <p><input type="checkbox"/> Drinking water intake</p> <p><input type="checkbox"/> Fishery</p> <p><input type="checkbox"/> Sensitive environment</p> <p><input type="checkbox"/> <input type="checkbox"/> Other criteria? _____</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> PRIMARY INTAKE(S) IDENTIFIED?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> PRIMARY FISHERY(IES) IDENTIFIED?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> PRIMARY SENSITIVE ENVIRONMENT(S) IDENTIFIED?</p>
<p>Summarize the rationale for Suspected Release (attach an additional page if necessary):</p> <p>No release to _____</p> <p>surfacewater is suspected.</p>	<p>Summarize the rationale for Primary Targets (attach an additional page if necessary):</p> <p>No primary targets _____</p> <p>have been identified.</p>

# **SURFACE WATER PATHWAY LIKELIHOOD OF RELEASE AND DRINKING WATER THREAT SCORESHEET**

Pathway Characteristics	
Do you suspect a release (see Surface Water Pathway Criteria List, page 11)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Distance to surface water:	<u>1400</u> ft
Flood frequency:	<u>100</u> yrs
What is the downstream distance to the nearest drinking water intake? <u>      </u> miles	
Nearest fishery? <u>      </u> miles	Nearest sensitive environment? <u>      </u> miles

## **LIKELIHOOD OF RELEASE**

- SUSPECTED RELEASE:** If you suspect a release to surface water (see page 11), assign a score of 550. Use only column A for this pathway.
- NO SUSPECTED RELEASE:** If you do not suspect a release to surface water, use the table below to assign a score based on distance to surface water and flood frequency. Use only column B for this pathway.

Distance to surface water $\leq$ 2,500 feet	500
Distance to surface water > 2,500 feet, and	
Site in annual or 10-year floodplain	500
Site in 100-year floodplain	400
Site in 500-year floodplain	300
Site outside 500-year floodplain	100

A Suspected Release	B No Suspected Release
550	100, 400, 300 = 100
	400
550	100, 400, 300 = 100
	400

References

5

LR =

## **DRINKING WATER THREAT TARGETS**

- Record the water body type, flow (if applicable), and number of people served by each drinking water intake within the target distance limit. If there is no drinking water intake within the target distance limit, factors 4, 5, and 6 each receive zero scores.

Intake Name	Water Body Type	Flow	People Served
_____	_____	_____ cfs	_____
_____	_____	_____ cfs	_____
_____	_____	_____ cfs	_____

- PRIMARY TARGET POPULATION:** If you suspect any drinking water intake listed above has been exposed to a hazardous substance from the site (see Surface Water Pathway Criteria List, page 11), list the intake name(s) and calculate the factor score based on the total population served.

N/A

\_\_\_\_\_ people  $\times$  10 =

- SECONDARY TARGET POPULATION:** Determine the number of people served by drinking water intakes that you do NOT suspect have been exposed to a hazardous substance from the site, and assign the total population score from PA Table 3.

Are any intakes part of a blended system? Yes ☐ No ☒

If yes, attach a page to show apportionment calculations.

- NEAREST INTAKE:** If you have identified a primary target population for the drinking water threat (factor 4), assign a score of 50; otherwise, assign the Nearest Intake score from PA Table 3. If no drinking water intake exists within the target distance limit, assign a score of zero.

- RESOURCES**

T =

PA TABLE 3: VALUES FOR SECONDARY SURFACE WATER TARGET POPULATIONS

Surface Water Body Flow (see PA Table 4)	Population	Nearest Intake (choose highest)	Population Served by Intakes Within Flow Category											Population Value
			1 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	Greater than 1,000,000	
< 10 cfs	_____	20	2	5	16	52	163	521	1,633	5,214	16,325	52,136	163,248	_____
10 to 100 cfs	_____	2	1	1	2	5	16	52	163	521	1,633	5,214	16,325	_____
> 100 to 1,000 cfs	_____	1	0	0	1	1	2	5	16	52	163	521	1,633	_____
> 1,000 to 10,000 cfs	_____	0	0	0	0	0	1	1	2	5	16	52	163	_____
> 10,000 cfs or Great Lakes	_____	0	0	0	0	0	0	0	1	1	2	5	16	_____
3-mile Mixing Zone	_____	10	1	3	8	26	82	261	816	2,607	8,162	26,068	81,663	_____
Nearest Intake = 0			Score = 0											

PA TABLE 4: SURFACE WATER TYPE / FLOW CHARACTERISTICS  
WITH DILUTION WEIGHTS FOR SECONDARY SURFACE WATER SENSITIVE ENVIRONMENTS

Type of Surface Water Body		Dilution Weight
Water Body Type	OR Flow	
minimal stream	< 10 cfs	1
small to moderate stream	10 to 100 cfs	0.1
moderate to large stream	> 100 to 1,000 cfs	N/A
large stream to river	> 1,000 to 10,000 cfs	N/A
large river	> 10,000 cfs	N/A
3-mile mixing zone of quiet flowing streams or rivers	10 cfs or greater	N/A
coastal tidal water (harbors, sounds, bays, etc.), ocean, or Great Lakes	N/A	N/A

**SURFACE WATER PATHWAY (continued)  
HUMAN FOOD CHAIN THREAT SCORESHEET**

11

**LIKELIHOOD OF RELEASE**

Enter Surface Water Likelihood of Release score from page 12.

LR =

A	B
Suspected Release (1000)	No Suspected Release (1000 x 0.400 = 400)
	400

Reference

**HUMAN FOOD CHAIN THREAT TARGETS**

8. Record the water body type and flow (if applicable) for each fishery within the target distance limit. If there is no fishery within the target distance limit, assign a Targets score of 0 at the bottom of the page.

Fishery Name	Water Body Type	Flow
		cfs
		cfs
		cfs
		cfs
		cfs

9. **PRIMARY FISHERIES:** If you suspect any fishery listed above has been exposed to a hazardous substance from the site (see Surface Water Criteria List, page 11), assign a score of 300 and do not evaluate Factor 10. List the primary fisheries:

\_\_\_\_\_

\_\_\_\_\_

**10. SECONDARY FISHERIES**

- A. If you suspect a release to surface water and have identified a secondary fishery but no primary fishery, assign a score of 210.
- B. If you do not suspect a release, assign a Secondary Fisheries score from the table below using the lowest flow at any fishery within the target distance limit.

Lowest Flow	Secondary Fisheries Score
< 10 cfs	210
10 to 100 cfs	30
> 100 cfs, coastal tidal waters, oceans, or Great Lakes	12

T =

	0
	0
	0
	12
	12

6

**SURFACE WATER PATHWAY (continued)  
ENVIRONMENTAL THREAT SCORESHEET**

12

**LIKELIHOOD OF RELEASE**

Enter Surface Water Likelihood of Release score from page 12.

LR =

A	B
Suspected Release N/A	No Suspected Release N/A
	400

Reference

**ENVIRONMENTAL THREAT TARGETS**

11. Record the water body type and flow (if applicable) for each surface water sensitive environment within the target distance limit (see PA Tables 4 and 5). If there is no sensitive environment within the target distance limit, assign a Targets score of 0 at the bottom of the page.

Environment Name	Water Body Type	Flow
		cfs
		cfs
		cfs
		cfs
		cfs

12. **PRIMARY SENSITIVE ENVIRONMENTS:** If you suspect any sensitive environment listed above has been exposed to a hazardous substance from the site (see Surface Water Criteria List, page 11), assign a score of 300 and do not evaluate factor 13. List the primary sensitive environments:

13. **SECONDARY SENSITIVE ENVIRONMENTS:** If sensitive environments are present, but none is a primary sensitive environment, evaluate Secondary Sensitive Environments based on flow.

- A. For secondary sensitive environments on surface water bodies with flows of 100 cfs or less, assign scores as follows, and do not evaluate part B of this factor:

Flow	Disturbance Weight (PA Table 4)	Environment Type and Value (PA Tables 5 and 6)	Total
cfs	X	=	
cfs	X	=	
cfs	X	=	
cfs	X	=	
cfs	X	=	

Sum =

- B. If all secondary sensitive environments are located on surface water bodies with flows > 100 cfs or flow N/A, assign a score of 10.

T =

	10
	10

7

**SURFACE WATER PATHWAY (concluded)**  
**WASTE CHARACTERISTICS, THREAT, AND PATHWAY SCORE SUMMARY**

WASTE CHARACTERISTICS	A	B
	Suspected Release (100 = 32)	No Suspected Release (100.32 = 18)
14. A. If you have identified any primary target for surface water (pages 12, 14, or 15), assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.		
B. If you have NOT identified any primary target for surface water, assign the waste characteristics score calculated on page 4.		18
WC =		18

**SURFACE WATER PATHWAY THREAT SCORES**

Threat	Likelihood of Release (LR) Score (from page 12)	Targets (T) Score (pages 12, 14, 15)	Pathway Waste Characteristics (WC) Score (determined above)	Threat Score $LR \times T \times WC$ / 82,500
Drinking Water	400	5	18	<small>(maximum of 100)</small> .4
Human Food Chain	400	12	18	<small>(maximum of 100)</small> 1.61
Environmental	400	10	18	<small>(maximum of 100)</small> 1.09

**SURFACE WATER PATHWAY SCORE**  
 (Drinking Water Threat + Human Food Chain Threat + Environmental Threat)

<small>(maximum of 100)</small> 2.4
--

SOIL EXPOSURE PATHWAY CRITERIA LIST	
SUSPECTED CONTAMINATION	RESIDENT POPULATION
<p>Surficial contamination can generally be assumed.</p>	<p>Y N U e o n s o k</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is any residence, school, or daycare facility on or within 200 feet of an area of suspected contamination?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is any residence, school, or daycare facility located on adjacent land previously owned or leased by the site owner/operator?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is there a migration route that might spread hazardous substances near residences, schools, or daycare facilities?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Have onsite or adjacent residents or students reported adverse health effects, exclusive of apparent drinking water or air contamination problems?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Does any neighboring property warrant sampling?</p> <p><input type="checkbox"/> <input type="checkbox"/> Other criteria? _____</p> <p><input type="checkbox"/> <input type="checkbox"/> RESIDENT POPULATION IDENTIFIED?</p>
<p>Summarize the rationale for Resident Population (attach an additional page if necessary):</p> <p>No residential areas, schools, or daycare facilities are located within 200 feet of the site.</p>	



# SOIL EXPOSURE PATHWAY SCORESHEET

15

Pathway Characteristics	
Do any people live on or within 200 ft of areas of suspected contamination?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Do any people attend school or daycare on or within 200 ft of areas of suspected contamination?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Is the facility active? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, estimate the number of workers: <u>10</u>	

## LIKELIHOOD OF EXPOSURE

1. SUSPECTED CONTAMINATION: Surficial contamination can generally be assumed, and a score of 550 assigned. Assign zero only if the absence of surficial contamination can be confidently demonstrated.

LE =

Suspected Contamination

550

References

8

## RESIDENT POPULATION THREAT TARGETS

2. RESIDENT POPULATION: Determine the number of people occupying residences or attending school or daycare on or within 200 feet of areas of suspected contamination (see Soil Exposure Pathway Criteria List, page 18).

\_\_\_\_\_ people x 10 =

0

9

3. RESIDENT INDIVIDUAL: If you have identified a resident population (factor 2), assign a score of 50; otherwise, assign a score of 0.

0

9

4. WORKERS: Use the following table to assign a score based on the total number of workers at the facility and nearby facilities with suspected contamination:

Number of Workers	Score
0	0
1 to 100	5
101 to 1,000	10
> 1,000	15

5

10

5. TERRESTRIAL SENSITIVE ENVIRONMENTS: Use PA Table 7 to assign a value for each terrestrial sensitive environment on an area of suspected contamination:

Terrestrial Sensitive Environment Type	Value
_____	_____
_____	_____

Sum =

0

11

## 6. RESOURCES

5

T =

10

## WASTE CHARACTERISTICS

7. Assign the waste characteristics score calculated on page 4.

WC =

(100, 20, or 40)

18

RESIDENT POPULATION THREAT SCORE:

LE X T X WC  
82,500

Subject to a maximum of 100

.6

NEARBY POPULATION THREAT SCORE:

2

12

SOIL EXPOSURE PATHWAY SCORE:

Resident Population Threat + Nearby Population Threat

Subject to a maximum of 100

2.6

**PA TABLE 7: SOIL EXPOSURE PATHWAY  
TERRESTRIAL SENSITIVE ENVIRONMENT VALUES**

<i>Terrestrial Sensitive Environment</i>	<i>Assigned Value</i>
Terrestrial critical habitat for Federally designated endangered or threatened species National Park Designated Federal Wilderness Area National Monument	100
Terrestrial habitat known to be used by Federally designated or proposed threatened or endangered species National Preserve (terrestrial) National or State terrestrial Wildlife Refuge Federal land designated for protection of natural ecosystems Administratively proposed Federal Wilderness Area Terrestrial areas utilized by large or dense aggregations of animals (vertebrate species) for breeding	75
Terrestrial habitat used by State-designated endangered or threatened species Terrestrial habitat used by species under review for Federal designated endangered or threatened status	50
State lands designated for wildlife or game management State designated Natural Areas Particular areas, relatively small in size, important to maintenance of unique biotic communities	25

AIR PATHWAY CRITERIA LIST	
SUSPECTED RELEASE	PRIMARY TARGETS
<p>Y N U e o n s k</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Are odors currently reported?</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Has release of a hazardous substance to the air been directly observed?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Are there reports of adverse health effects (e.g., headaches, nausea, dizziness) potentially resulting from migration of hazardous substances through the air?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Does analytical or circumstantial evidence suggest a release to the air?</p> <p><input type="checkbox"/> <input type="checkbox"/> Other criteria? _____</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> SUSPECTED RELEASE?</p>	<p>If you suspect a release to air, evaluate all populations and sensitive environments within 1/4 mile (including those onsite) as primary targets.</p>
<p>Summarize the rationale for Suspected Release (attach an additional page if necessary):</p> <p>_____</p> <p>The DuPage County Fire Department responded to a citizen complaint concerning fumes emanating from the drum storage area at the former Accent Marble facility.</p> <p>_____</p>	

# AIR PATHWAY SCORESHEET

18

Pathway Characteristics	
Do you suspect a release (see Air Pathway Criteria List, page 21)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Distance to the nearest individual:	<u>100</u> ft

## LIKELIHOOD OF RELEASE

- SUSPECTED RELEASE:** If you suspect a release to air (see page 21), assign a score of 550. Use only column A for this pathway.
- NO SUSPECTED RELEASE:** If you do not suspect a release to air, assign a score of 500. Use only column B for this pathway.

A	B
Suspected Release	No Suspected Release
550	
	500
LR = 550	

References

13

## TARGETS

- PRIMARY TARGET POPULATION:** Determine the number of people subject to exposure from a suspected release of hazardous substances to the air.  
510 people  $\times 10 =$
- SECONDARY TARGET POPULATION:** Determine the number of people not suspected to be exposed to a release to air, and assign the total population score using PA Table 8.
- NEAREST INDIVIDUAL:** If you have identified any Primary Target Population for the air pathway, assign a score of 50; otherwise, assign the Nearest Individual score from PA Table 8.
- PRIMARY SENSITIVE ENVIRONMENTS:** Sum the sensitive environment values (PA Table 5) and wetland acreage values (PA Table 9) for environments subject to exposure from a suspected release to the air.

Sensitive Environment Type	Value

Sum =

- SECONDARY SENSITIVE ENVIRONMENTS:** Use PA Table 10 to determine the score for secondary sensitive environments.
- RESOURCES**

5,100	
90	
20	
0	
0	
5	
T = 5215	

14

15

15

11

## WASTE CHARACTERISTICS

- A.** If you have identified any Primary Target for the air pathway, assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.
- B.** If you have NOT identified any Primary Target for the air pathway, assign the waste characteristics score calculated on page 4.

32	
WC = 32	

AIR PATHWAY SCORE:

$$\frac{LR \times T \times WC}{82,500}$$

Adjusted to a maximum of 100
100

PA TABLE 8: VALUES FOR SECONDARY AIR TARGET POPULATIONS

Distance from Site	Population	Nearest Individual (choose highest)	Population Within Distance Category													Population Value	
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	Greater than 1,000,000			
Onsite	<u>10</u>	<u>20</u>	<u>1</u>	2	5	16	52	163	521	1,633	5,214	16,325	52,136	163,248	<u>1</u>		
> 0 to ¼ mile	<u>510</u>	20	1	1	1	4	<u>13</u>	41	130	408	1,303	4,081	13,034	40,811	<u>13</u>		
> ¼ to ½ mile	<u>5000</u>	2	0	0	1	1	3	9	<u>28</u>	88	282	882	2,815	8,815	<u>28</u>		
> ½ to 1 mile	<u>15,000</u>	1	0	0	0	1	1	3	8	<u>26</u>	83	261	834	2,612	<u>26</u>		
> 1 to 2 miles	<u>30,000</u>	0	0	0	0	0	1	1	3	<u>8</u>	27	83	266	833	<u>8</u>		
> 2 to 3 miles	<u>45,000</u>	0	0	0	0	0	1	1	1	4	<u>12</u>	38	120	376	<u>12</u>		
> 3 to 4 miles	<u>27,000</u>	0	0	0	0	0	0	1	1	<u>2</u>	7	23	73	229	<u>2</u>		
Nearest Individual =		<u>120</u>														Score =	<u>90</u>

PA TABLE 9: AIR PATHWAY VALUES FOR WETLAND AREA

Wetland Area	Assigned Value
Less than 1 acre	0
1 to 50 acres	25
Greater than 50 to 100 acres	75
Greater than 100 to 150 acres	125
Greater than 150 to 200 acres	175
Greater than 200 to 300 acres	250
Greater than 300 to 400 acres	350
Greater than 400 to 500 acres	450
Greater than 500 acres	500

PA TABLE 10: DISTANCE WEIGHTS AND CALCULATIONS FOR AIR PATHWAY SECONDARY SENSITIVE ENVIRONMENTS

<i>Distance</i>	<i>Distance Weight</i>	<i>Sensitive Environment Type and Value (from PA Table 5 or 9)</i>	<i>Product</i>
Onsite	0.10	x	
		x	
0-1/4 mi	0.025	x	
		x	
		x	
1/4-1/2mi	0.0054	x	
		x	
		x	
		x	
Total Environments Score =			

# SITE SCORE CALCULATION

20

	S	S <sup>2</sup>
GROUND WATER PATHWAY SCORE (S <sub>gw</sub> ):	100	10,000
SURFACE WATER PATHWAY SCORE (S <sub>sw</sub> ):	2.4	5.8
SOIL EXPOSURE PATHWAY SCORE (S <sub>s</sub> ):	2.6	6.8
AIR PATHWAY SCORE (S <sub>a</sub> ):	100	10,000
SITE SCORE:	$\sqrt{\frac{S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2}{4}}$	
	70.7%	

## SUMMARY

	YES	NO
<p>1. Is there a high possibility of a threat to any nearby drinking water well(s) by migration of a hazardous substance in ground water?</p> <p>A. If yes, identify the well(s). _____</p> <p>B. If yes, how many people are served by the threatened well(s)? _____</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>2. Is there a high possibility of a threat to any of the following by hazardous substance migration in surface water?</p> <p>A. Drinking water intake</p> <p>B. Fishery</p> <p>C. Sensitive environment (wetland, critical habitat, others)</p> <p>D. If yes, identify the target(s). _____</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
<p>3. Is there a high possibility of an area of surficial contamination within 200 feet of any residence, school, or daycare facility?</p> <p>If yes, identify the property(ies) and estimate the associated population(s). _____</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>4. Are there public health concerns at this site that are not addressed by PA scoring considerations? If yes, explain: _____</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

HRS DOCUMENTATION LOG SHEET SITE NAME: Accent Marble  
LOCATION: Villa Park, Illinois  
ILD 982069270

REF. NO.	DESCRIPTION OF REFERENCE
1	No release to groundwater is suspected. No groundwater wells within a 4 mile radius are used for drinking purposes. All of these wells are used in a backup role. All drinking water in the area is supplied by the city of Chicago. The depth to the shallowest aquifer is approximately 70 feet.
2	All residences within a 4 mile radius utilize water from nearby water districts, who obtain water from surface water intakes on Lake Michigan.
3	The nearest drinking water well is located over one mile from the site. See 7.5 minute map for location of this well.
4	Wellhead protection areas are located within 4 miles of the site, but the source does not lie within or above, nor a primary source is identified within this area.
5	There has been no suspected release to surfacewater and the site lies in a 100 year floodplain.
6	According to Dick Lutz of the Department of Conservation, there are no sensitive aquatic environments within the 15 mile target distance limit.
7	According to Dick Lutz of the Department of Conservation, no sensitive environments are located within the 15 mile target distance limit.
8	Since no release to soil is suspected and surficial contamination is generally assumed, a score of 550 is assigned.
9	During the site reconnaissance, IEPA personnel identified no schools or residences within 200 feet of the site.

HRS DOCUMENTATION LOG SHEET    SITE NAME: Accent Marble  
LOCATION: Villa Park, Illinois  
ILD 982069270

REF. NO.	DESCRIPTION OF REFERENCE
10	According to Doris Salamone of Marketing Productions, eight (8) people are employed at the present facility.
11	According to Dick Lutz of the Department of Conservation, there are no sensitive environments within the target distance limit.
12	The population within a one mile radius of the site is between 10,000 and 50,000.
13	The DuPage County Fire Department responded to citizen complaints concerning fumes emanating from Accent Marble's drum storage area on August 23, 1990.
14	An estimation of people occupying a one-quarter mile radius from the site.
15	See PA Table 8.